



Raymark Bulletin #43

Raymark Superfund Site
Stratford, Connecticut

February, 2004

Operable Unit 6 Remedial Investigation Report

What is the Raymark Superfund Site?

The Raymark Facility on East Main Street in Stratford, Connecticut operated from 1919 to 1989. Formerly known as Raybestos-Manhattan, Inc., Raymark manufactured gaskets, clutches, and heavy brake friction components for the automotive industry. As identified by EPA on the National Priorities List in April 1995, the Raymark Superfund Site includes the former Raymark Facility property and other areas where contaminated wastes from this industrial facility have been found. While the Raymark Superfund Site is referred to as one site, it is actually composed of many locations where Raymark waste has been found. This fact sheet is focusing on a group of 27 properties that have been identified, sampled, and confirmed to have Raymark waste disposed on them. These 27 properties are included in the upcoming Operable Unit (OU) 6 Remedial Investigation (RI) Report that is due out in April, 2004.

Operable Unit 6 (OU6) of the Raymark Superfund Site consists of 27 properties that have been identified, sampled, and confirmed to have Raymark waste disposed on them. These properties have been found throughout Stratford but are usually located next to historically filled wetland areas. The 27 parcels include residential, commercial, and vacant lots.

The purpose of this fact sheet is to

- ✓ *notify property owners as well as the public in general on the completion of the Remedial Investigation (RI) report which summarizes the investigations to date.*
- ✓ *explain the overall Superfund process and identify the "next steps" involved.*
- ✓ *begin to address potential health and property related concerns*
- ✓ *identify ways by which individuals can participate in the development of cleanup options.*

The fact sheet has been designed primarily for OU6 property owners and is also available at the Stratford Library..

Inside>>>

| | |
|------------------------------|---|
| What's in the RI?..... | 2 |
| Community Participation..... | 3 |
| What's Superfund?.... | 4 |
| Health..... | 5 |
| Property Cleanup..... | 6 |
| Property issues..... | 7 |
| Contacts..... | 8 |

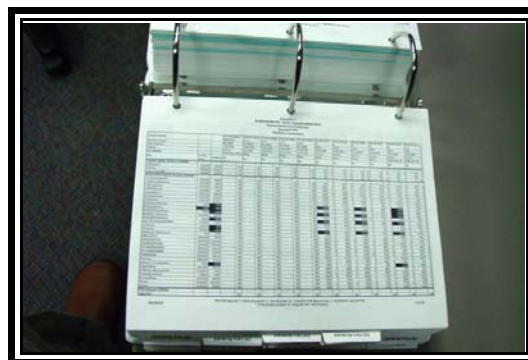


Many of the commercial properties discussed in the RI report are located along Ferry Creek.

What is in the Remedial Investigation Report?

The report contains text, including discussion of investigation activities and results, as well as tables and figures for each property. The appendices contain the boring logs from the drilling at each property; the risk assessment and associated data, and the analytical data used to produce the report, property by property, and the prior field investigations. The report is organized as follows:

- | | |
|-------------------|--|
| Executive Summary | This provides a brief overview of the RI Report and conveys key points and conclusions. |
| Section 1 | This section contains the introduction and describes the purpose of the report. It also includes background information about the Raymark Superfund Site and provides a brief explanation of the other operable units. |
| Section 2 | This section focuses on the OU6 study area including the general physical characteristics of the area. It further provides information about how the properties were identified, the definition of Raymark waste, nature and extent of contamination, and fate and transport of contamination. |
| Section 3 | This section presents a property by property discussion for each of the 27 parcels where Raymark waste has been identified and which forms the basis for the report. All of the discussions are property specific descriptions, including activity currently underway, a physical description of the setting, the nature and extent of contamination, the assumed contaminant movement, a presentation of the human health and ecological risk assessments, and a summary of property findings. Summary statistics and a comparison to the Raymark waste benchmarks are presented in a table of each property in Section 3. In addition, a figure depicting sample locations and identification of Raymark waste areas, and exceedances of CT RSRs, is also presented for each property. |
| Section 4 | The Summary and Conclusions section provides additional details on property by property findings. |



The 2 volumes of the Draft Final Remedial Investigation for Raymark Operable Unit 6 contain about 7 inches of text, charts, and figures.

COMMUNITY PARTICIPATION

What is the Raymark Advisory Committee?

The Raymark Advisory Committee (RAC) is the local advisory group organized by the Town of Stratford to work with the U.S. Environmental Protection Agency (EPA) and the Connecticut Department of Environmental Protection (CT DEP) on the investigation and cleanup of contamination associated with the Raymark Superfund Site. The Stratford Town Council sought to establish a broad based membership of citizens from affected neighborhoods and businesses when it established the committee in June, 2000. The RAC members are charged with ensuring that the Superfund cleanup process addresses the many individual concerns within the town, reconciling the collective interests of all Stratford residents in their advice to the environmental regulatory agencies.

The RAC meets monthly on the second Tuesday at 6:30 p.m. at the Stratford Army Engine Plant located at 550 Main Street in Stratford. The public is invited. Please call the Stratford Health Department at 385-4090 or visit its website to confirm the date of the next meeting. (<http://www.townofstratford.com/health/raymark.shtm>)

Why is my participation important?

Citizens who live and work around Superfund sites are encouraged to participate in the final cleanup decisions at a particular site because of the potential impacts that may result in their community. Cleanup efforts can also be disruptive and citizens and property owners need to have a say in how they will be conducted. Your participation and knowledge of your property, including current and potential future use, will contribute to a more effective and comprehensive cleanup decision which is also consistent with the community interest.

How do I keep informed?

You have the opportunity and the right to be informed about and comment on work being done under Superfund. Information is passed onto the community through fact sheets such as this bulletin, letters and flyers, newspaper ads, phone calls, meetings, information repositories, and the internet. Sometimes it can be difficult to get involved in these types of issues in your community. The technical complexity of Superfund and hazardous waste issues together with finding the time and resources necessary to gain familiarity with the science, engineering, public health and legal issues are always significant obstacles to overcome. Over the past two years, EPA and CTDEP having been working with citizens on the Raymark Advisory Committee (RAC) to overcome these obstacles by providing resources to hire an independent technical advisor to help citizens review technical documents, improve their understanding of Superfund legal and technical issues, and provide technical comments on documents and cleanup priorities.

How can I discuss the findings of the RI Report with the agencies?

EPA is planning to schedule a meeting during the early spring to give you an opportunity to hear from and meet the staff from EPA and CTDEP that will be working with you and community members to develop a comprehensive Feasibility Study that will evaluate potential cleanup options for numerous Raymark waste locations in Stratford. Technical staff will be present to answer questions about the contamination on your property and provide you with some preliminary information about EPA's schedule for selecting a cleanup remedy. We will also have legal staff available to provide you with a summary of the federal Superfund law and to discuss liability issues in general. There will also be staff from the Stratford Health Department and the CT Department of Public Health to answer questions about the risk assessment on your property or related health matters.

How can I get involved?

In addition to the information meeting described above which will expressly focus on the interests of OU6 property owners, EPA will be meeting monthly with the Raymark Advisory Committee where you are welcome to participate. The Stratford Town Council views the RAC as a forum that provides for an on-going dialog with members of the Stratford community, town officials, the U.S. Environmental Protection Agency (EPA), the Connecticut Department of Environmental Protection (CTDEP), and other concerned parties interested in the Raymark cleanup. This forum allows interested citizens and town officials to have an active voice in the on-going work within the town. The RAC will provide comments on documents developed on site investigations such as the OU6 RI, initial cleanup strategies, upcoming fieldwork events, and public relations information. The committee will receive the documents and provide comments to EPA on behalf of the town. All cleanup plans and options will be studied by the RAC prior to any cleanup decisions being proposed by EPA.

FURTHER INFORMATION

SUPERFUND

What is the Superfund and the Superfund Process?

The Environmental Protection Agency has identified over 11,000 hazardous waste sites in the United States. Those sites that present the most significant human and environmental health threats are included on the National Priorities List (NPL) which qualifies them for long term cleanup efforts. Sites on the NPL are called Superfund sites in reference to the program and monetary fund established by Congress to manage and help pay for their cleanup. As of January, 2004, there were 1242 Superfund sites nationwide. There are 16 Superfund sites in Connecticut, including the Raymark Superfund Site in Stratford.

The investigation and cleanup process at Superfund sites can be long and complex. The initial part of the process is typically as follows:

1. Investigations are conducted to determine the type and amount of contamination present (known as the Remedial Investigation or RI).
2. Potential cleanup options are identified and evaluated in a Feasibility Study or FS.
3. A cleanup plan is proposed (known as the Proposed Plan) for public input which ultimately results in a Record of Decision (ROD) that documents EPA's selected cleanup approach for the site.
4. A Remedial Design or RD is developed to implement the selected cleanup approach.
5. The cleanup (Remedial Action or RA) is completed.

Feedback from the affected community, the general public and local and state officials is solicited throughout this entire process on both a formal and informal basis. Formal feedback is solicited via public hearings and comment periods; informal comment is received on an ongoing basis from interested citizens and local officials involved in the investigations and cleanup of a Superfund site.

What is a Remedial Investigation?

After a site is listed as a Superfund site, the first step is to perform a Remedial Investigation (RI). The Remedial Investigation serves as the mechanism for collecting sufficient environmental data to characterize site conditions (the location and amount of contamination on a property), determine the nature of the contamination, and assess the potential risks posed by the contamination to human health and the environment. The Operable Unit 6 RI defines the extent of the problem at 27 different properties where Raymark waste has been identified, and provides the information needed to move to the second step of the Superfund process, the Feasibility Study (FS).

What is Raymark waste?

While a large number of different chemicals and materials were used in the manufacturing processes at the Raymark facility during its operation, Raymark waste in soil is defined as a single soil sample containing lead above 400 parts per million (ppm), **and** asbestos (chrysotile only) greater than 1 percent, **and either** copper above 288 ppm **or** polychlorinated biphenyls (PCBs) (Aroclor 1268 only) above 1 ppm.

While other contaminants are present in Raymark waste, the four contaminants identified above are being used as a "fingerprint" to identify Raymark waste locations. Lead was used in the fabrication of various brake and friction materials in the Raymark manufacturing process, and it appeared in the samples collected both at the Raymark facility and at offsite Raymark waste locations during the 1990s. The specific types of asbestos and PCBs used in the definition are associated with the Raymark facility and its manufacturing processes. Copper was selected as an identifying contaminant because of its predominance in Raymark waste based on previous sampling.



HEALTH QUESTIONS

What are the potential health effects associated with exposure to the chemicals contained in Raymark waste?

Exposure to high levels of lead can damage the brain and kidneys, increase blood pressure, and damage the male reproductive system in both children and adults. For infants and young children, even low-level exposures can cause learning difficulties, hearing problems, reduced IQ scores, and slow growth. Pregnant women can pass lead on to their babies, causing low birth weight, premature birth, and nervous system problems. Exposed mothers who breastfeed can also pass lead on to their babies.

Long-term workplace exposure to high levels of asbestos in air has been shown to cause lung cancer, mesothelioma (cancer of the lining around the lungs and other organs), and asbestosis, a hardening of tissue in the lungs. Much less is known about exposure to lower levels of exposure to asbestos, but in some cases it can cause breathing problems.

The U.S. Department of Health and Human Services has determined that exposure to PCBs may be reasonably expected to cause cancer. Most human studies involved people who were exposed to PCBs through their jobs. Exposure to large amounts of PCBs can cause skin conditions such as acne and rashes, and may also cause liver damage.

Is this contamination currently endangering my customers, staff, or family?

Having Raymark waste on a property is not an automatic human health risk. Health risks are present only if people are exposed to the waste. This can occur either through contact with the soil or by breathing soil particles that have become airborne. However, interim measures, such as fencing off areas or placing temporary soil, pavement or vegetation covers on exposed areas, have been taken in many areas where potential exposure to Raymark waste has been identified in Stratford.

Has the contamination endangered anyone on my property in the past?

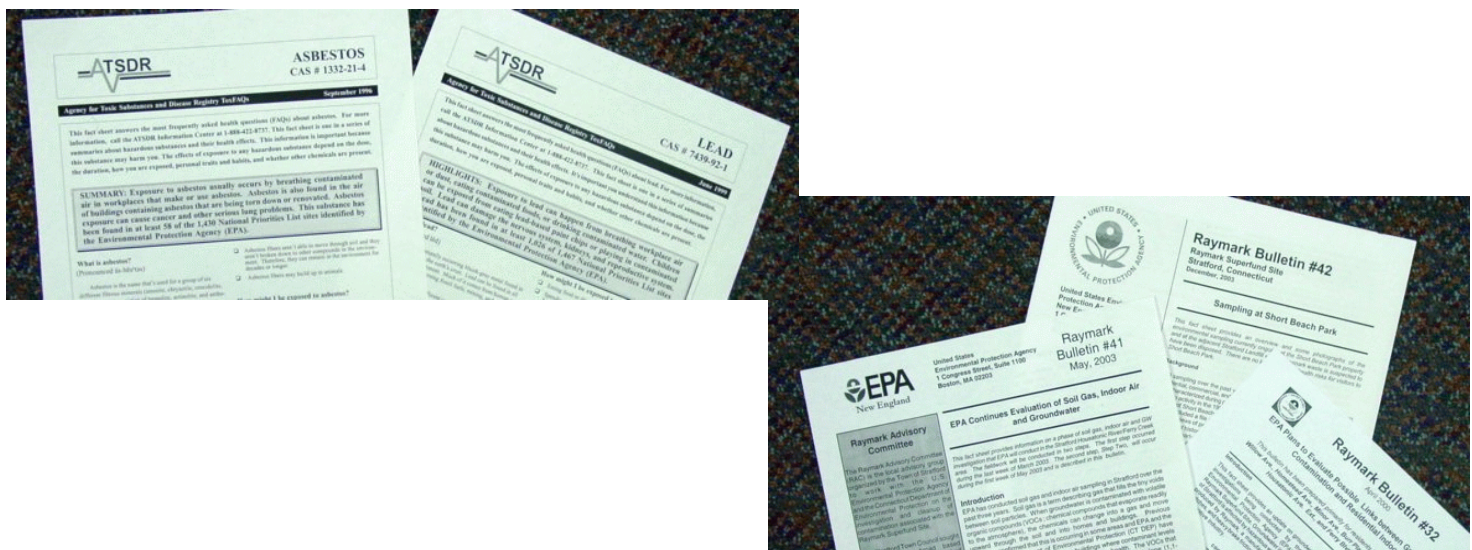
Past exposures may have occurred if anyone came into contact with contaminated soil or breathed air that contained contaminated soil particles, but possible adverse effects are difficult to determine without knowing the concentration of chemicals to which someone may have been exposed and how long the exposure lasted.

What are the benefits of cleaning up my property?

Cleaning up your property will effectively stop potential current and future exposure to Raymark waste, eliminating possible adverse health effects due to such exposure. In addition, it could lead the way toward redevelopment, which could include recreational facilities, a commercial office park, public parkland, street scape improvements, constructed wetlands, and/or a hotel/marina complex. It will also make it possible to continue unhindered operation of current businesses. The Strategic Redevelopment Initiative Pilot Project, which was developed by the Town of Stratford under a grant from EPA, outlines recommendations for re-use and redevelopment of remediated property.

To what extent is my property affected?

The objective of the sampling conducted to date has been to confirm the presence and the approximate extent of Raymark waste on each property. Section 3 of the OU6 RI Report presents a property by property discussion for each of the 27 properties where Raymark waste has been identified. The maps for each property in the OU6 RI reflect the current understanding of the extent of Raymark waste on each property.



Where do I find risk information about my property?

The OU 6 RI Report provides property specific information about potential human health and ecological risk from areas containing Raymark waste at each of the 27 properties.

Where do I get both generic and Raymark specific health information?

A series of fact sheets has been developed on community concerns about public health and environmental issues associated with the Raymark Superfund site. These fact sheets include more information about public health, exposure pathways, risk assessment, and the public health effects of the contaminants found in Raymark waste.

This series of fact sheets was developed through a collaborative effort of the U.S. Environmental Protection Agency (EPA), U.S. Agency for Toxic Substances and Disease Registry (ATSDR), the Connecticut Department of Environmental Protection (CTDEP), the Connecticut Department of Public Health (CTDPH), and the Stratford Health Department. Copies of these fact sheets are available at the Stratford Health Department (203-385-4090) located at 468 Birdseye Street in Stratford. Additional information on the general effects of common environmental pollutants can be found on ATSDR's website: www.atsdr.cdc.gov/toxfaq.html.

What is the Human Health Risk Assessment?

The risk assessment provides the framework to assist in determining the need for cleanup at each property and developing potential cleanup alternatives for that property. The objective of the human health risk assessment is to estimate potential current and future risks to the public from the contamination detected in the soil samples collected from within the estimated areas of Raymark waste on each property. In addition to the Raymark waste indicator contaminants (lead, asbestos, copper, PCBs), other contaminants detected within the area of Raymark waste were also evaluated in the risk assessment. Each property has an evaluation of risk to human health resulting from exposure to soils containing the characteristic Raymark waste.

PROPERTY CLEANUP

How much contamination has been cleaned up to date?

EPA activities in Stratford have been and continue to be focused on addressing and reducing potential health risks from all Raymark waste locations. In 1993, EPA agreed to cleanup the waste left behind by Raymark even before it was listed on the NPL. By 1995, 46 residential properties and a portion of the Wooster Middle School were cleaned up and restored. Portions of Short Beach Park, the Housatonic Boat Club along Shore Road, and Raybestos Memorial Baseball Field were covered with temporary protective caps to reduce exposure to the Raymark waste. In 1997, EPA completed construction of the permanent protective cap over the entire 36-acre Raymark property, and in 2002, The Stratford Crossing Shopping Center was completed over the cap. In 2003, EPA and CT DEP began installing ventilation systems in more than 100 private homes to protect residents from potential indoor air problems caused by Raymark contamination in groundwater which flows under their neighborhood.

Is there an overall plan to cleanup my property?

Working closely with the Raymark Advisory Committee (RAC) and town officials, the EPA and the CT DEP have agreed to develop a comprehensive Feasibility Study that will evaluate potential cleanup options for numerous Raymark waste locations in Stratford. This approach will form the basis for a "master plan" for cleaning up these contaminated areas. While each property will be evaluated individually to best accommodate potential future use and redevelopment plans, the consideration of cleanup options across the various properties offers increased flexibility for each property. EPA expects to continue working closely with the RAC and individual property owners over the next several months to reach consensus on the various cleanup options for these areas together with an estimate of the overall cost for the cleanup.

Will you be taking one cleanup action, or can I expect on-going action over time?

There will likely be a phased approach for the final cleanup. EPA will work with the community and property owners on an overall strategy to prioritize cleanup actions, and establish time lines for specific properties. Before this can happen, EPA needs to complete the comprehensive Feasibility Study (FS) report, the next step in the Superfund process.

Who will be doing the cleanup work?

The evaluations and design leading to the final cleanup will be developed and implemented by EPA, in conjunction with the State and the affected property owner. EPA typically uses an engineering firm as a prime contractor to provide the services needed to direct the cleanup. During past Raymark activities EPA has used both the U.S. Army Corps of Engineers and Tetra Tech NUS in this capacity. The prime contractor typically hires subcontractors to perform physical work such as drilling, excavating soil, treating contaminants, and construction.

How long will it take for the various investigations and plans to be completed?

EPA has completed investigations at all 27 properties currently included in the OU6 RI report; only a handful of additional properties require sampling or access for sampling. EPA anticipates working with the RAC over the next several months on the comprehensive Feasibility Study (FS) for these 27 properties and the numerous other areas in Stratford where Raymark waste has been identified. If consensus can be achieved with the RAC and other interested parties involved in the comprehensive FS by the fall of 2004, EPA would expect to begin the formal public comment process on the proposed cleanup plan for these Raymark contaminated areas in late 2004-early 2005.

Why has it taken so long to find out I am part of this cleanup?

A series of environmental investigations have been performed by federal and state agencies over the past ten year period (1993 - 2003). In this effort, over 500 properties were evaluated for the potential presence of Raymark waste and a very large volume of data has been collected. Some of the property owners whose parcels were evaluated earlier in this investigational phase have been aware of the existence of documented Raymark waste on their properties for some time. Others are just now being notified. The culmination of this effort is the identification of 27 properties that contain Raymark waste.

PROPERTY VALUE and LIABILITY

What does designation as part of the OU6 Remedial Investigation mean for me?

It means that Raymark waste has been positively identified on your property. The OU 6 RI Report specifies the nature and approximate extent of the waste with text, tables and figures. EPA will work closely with you to determine the best way to address the contamination on your property.

How will this affect my property value?

EPA is concerned about potential adverse effects on property values that may result when a property is designated as part of a Superfund site. EPA's job is to address any threats to the health of people and the environment and a resolution of such threats should positively effect property values. It may be useful to talk with owners of some of the other properties identified in the RI report. Several of these commercial property owners have known about the contamination on their property for many years and may be willing and able to provide current information based on their own experience concerning impacts on property values, real estate transactions, refinancing, etc. Regardless, the quicker the cleanup is completed, the quicker any property value issues will be resolved.

What liability do I have and can I be released of liability?

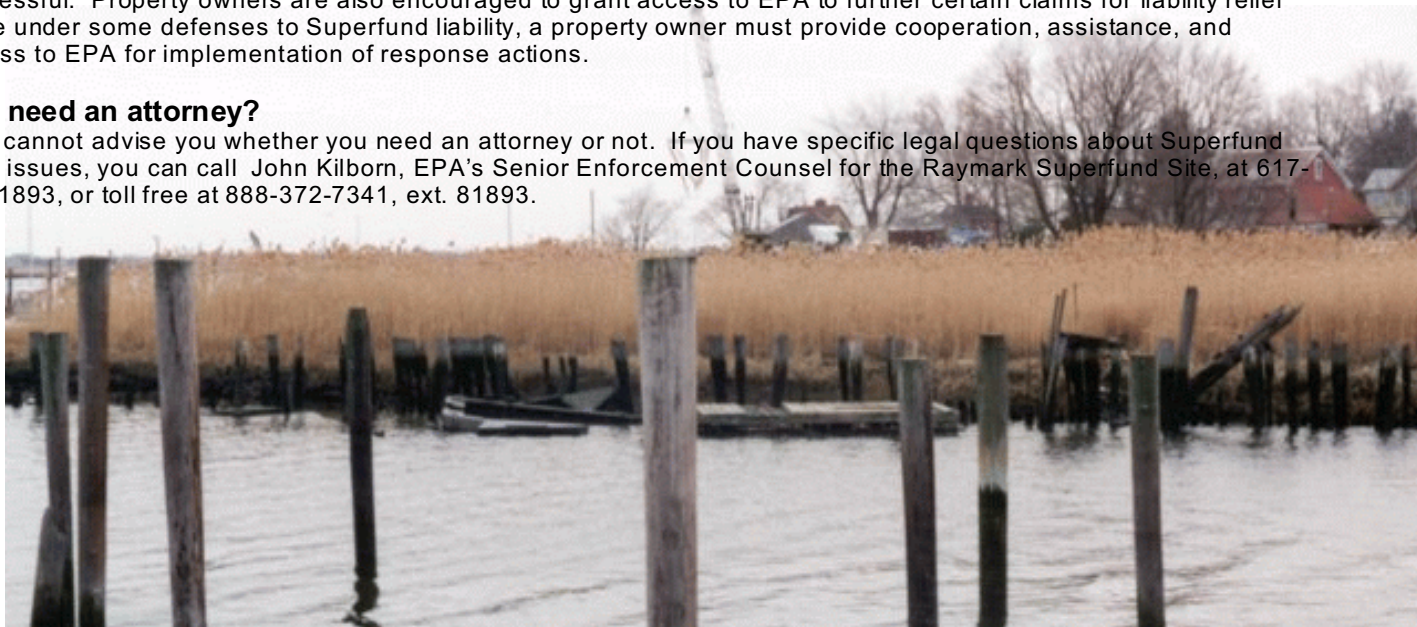
Generally current landowners of contaminated property may have liability under federal and state environmental laws. There are various exceptions and defenses to federal Superfund liability. The discussion of this topic can be complicated and each property must be examined on an individual basis since the particular circumstances will vary from property to property. EPA presented an overview of Federal Superfund Liability to the Raymark Advisory Committee in March, 2003. The outline used for the presentation is being made available to the 27 property owners included in the OU6 RI Report and is available at the Stratford Library.

What happens if I choose not to grant you access to my property?

EPA strives to work cooperatively with individual property owners to minimize disruption and inconvenience, and to establish a suitable schedule for the necessary environmental work on a property. EPA, however, has the authority to issue an administrative order which requires that access be granted for conducting investigations to assess contamination and determine an appropriate response on a property. Generally the cooperative approach is successful. Property owners are also encouraged to grant access to EPA to further certain claims for liability relief since under some defenses to Superfund liability, a property owner must provide cooperation, assistance, and access to EPA for implementation of response actions.

Do I need an attorney?

EPA cannot advise you whether you need an attorney or not. If you have specific legal questions about Superfund legal issues, you can call John Kilborn, EPA's Senior Enforcement Counsel for the Raymark Superfund Site, at 617-918-1893, or toll free at 888-372-7341, ext. 81893.



INFORMATION REPOSITORY, WEBSITES, and AGENCY CONTACTS

Where do I get information about the Raymark Site as well as general Superfund information?

Additional information is available in the site repository in the reference section of the Stratford Public Library at 2203 Main Street. This repository contains general materials about EPA's Superfund program, Superfund laws, and many volumes of Raymark specific reports and data including:

- Copies of all current and past Raymark Bulletins.
- Copies of Remedial Investigation Reports for Ferry Creek, the Raymark Facility, and Raybestos Memorial Ballfield.
- EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, which details the RI/FS process.
- Copy of the Strategic Redevelopment Initiative Pilot Project report.

Over time, EPA will make additions to the repository, including other relevant technical reports and data, as well as public outreach information about the Raymark Superfund site. There is additional information about the Raymark Superfund Site on the internet:

Stratford Health Department pages of the Town of Stratford website:

<http://www.townofstratford.com/health/raymark.shtm>

EPA New England website for Raymark specific information and past Raymark Bulletins:

www.epa.gov/region01/superfund/sites/raymark/bulletin

EPA Headquarters Superfund website includes information about the cleanup process, technologies, risk assessment, laws and regulations, policies, and other superfund resources:

<http://www.epa.gov/superfund/index.htm>

If I have a concern or want more information, who do I contact?

Jim Murphy, EPA Community Involvement
617-918-1242 or toll free 888-372-7341
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The Raymark facility on East main Street was demolished by EPA in 1996.